



The Comptroller General  
of the United States

Washington, D.C. 20548

## Decision

Matter of: Orlite Engineering Company, Ltd.

File: B-229615

Date: March 23, 1988

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### DIGEST

Domestic fabric is not a domestic component for purposes of the Buy American Act where manufacturing operations conducted in a foreign country using the fabric and other domestic materials result in the production of a helmet shell, an item that is substantially different in form and character from the domestic fabric, which is then fitted with other components in order to complete the end item.

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### DECISION

Orlite Engineering Company, Ltd., an Israeli firm, protests the award of a contract to Gentex Corporation under invitation for bids (IFB) No. DLA100-87-B-0764, issued by the Defense Logistics Agency's Defense Personnel Support Center in Philadelphia. We deny the protest.

The solicitation requested bids for 3280 outer shell assemblies for the DH-132A helmet, with a 100 percent option. Of the five bids received, Orlite's bid was the lowest. The contracting officer determined, however, that Orlite was not offering a domestic end product, and therefore added a 50 percent evaluation factor to Orlite's bid price pursuant to Department of Defense Federal Acquisition Regulation Supplement § 25.105 (1986 ed.), which implements the Buy American Act, 41 U.S.C. §§ 10a-10d (1982). With this adjustment, Orlite's bid was no longer low.

A domestic end product is "an end product manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components." Federal Acquisition Regulation (FAR) § 25.101. Orlite argues

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that its end product would be manufactured in the United States because final assembly of the outer shell assemblies would take place in Tennessee, and that the cost of the components manufactured in the United States would exceed 50 percent of the cost of all of the components. The agency argues that Orlite's product does not meet either criterion.

The principal raw material used in making the outer helmet shell assemblies is Kevlar, a fiber that apparently is available only from a domestic source. As Orlite describes its manufacturing process, a domestic firm weaves the Kevlar into a fabric before another domestic firm coats the fabric with a resin. The fabric then is shipped to Israel, where the Kevlar is cut, stacked into nine layers, and inserted into a mold of the helmet shell. Pressure and heat are applied to the mold in order to bond the layers of Kevlar together to form the helmet shell. The shell then is removed from the mold and trimmed. Holes are drilled in the shell, a stud and eyelet are attached, a rubber edge beading is applied, and the shell is painted. Orlite says that after all these processes had been completed, it would ship the outer shells to Tennessee, where tab assemblies and fastening strips would be attached. The resulting outer shell assemblies then would be packaged and delivered to the government.

Orlite points out that the agency is not buying just outer helmet shells; rather, the end items being procured are outer helmet shell assemblies that include both the tab assemblies and the attachment strips. Orlite argues that manufacturing means completion of the end item in the form required for use by the government and that the attachment in Tennessee of the tab assemblies and fastening strips to the outer shells would constitute domestic manufacturing because this process would transform the helmet shells into the end items being procured. With respect to the requirement that the cost of components manufactured in the United States exceed 50 percent of the cost of all components, Orlite's position is that the requirement is met here because the cost of the Kevlar fabric is well in excess of the total cost of all the components used to make the end products.<sup>1/</sup> In this regard, Orlite contends that the Kevlar fabric--as opposed to the helmet shells shipped from

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<sup>1/</sup>Orlite has asked that we not disclose the details of the cost data it provided to this Office, claiming that this information is proprietary.

Israel--should be considered as a component of the outer helmet shell assemblies because the Kevlar would undergo no change in form or character as a result of the operations conducted in Israel.

We need not decide whether the operations Orlite would perform in Tennessee would be sufficient to constitute manufacturing of the outer helmet shell assemblies, for even assuming arguendo that manufacturing of the end items would occur in Tennessee, the component cost test would not be satisfied.

"Components" for Buy American Act purposes means "those articles, materials, and supplies incorporated directly into the end products." FAR § 25.101. The issue here is whether it is the Kevlar fabric or the helmet shell that should be considered a component of the outer helmet shell assembly. In this regard, we have said that if a manufacturing process performed on material results in a separately identifiable component that in turn is integrated into the end product being procured, the material does not constitute a component. Yohar Supply Co., B-225480, Feb. 11, 1987, 66 Comp. Gen. \_\_\_\_\_, 87-1 CPD ¶ 152 (domestic rolled steel sent to Korea for fabrication into parts for a lock set is not a component, and its cost is therefore not relevant for purposes of applying the Buy American Act). A domestic material loses its U.S. identity when the result of a manufacturing process performed in a foreign country is a substantially different product. See 45 Comp. Gen. 658 (1966).

We do not agree with Orlite that no substantial change in the Kevlar fabric would occur as a result of the fabrication of the helmet shells in Israel. Rather, it appears to us there is a great deal of difference between the Kevlar fabric as it arrives in Israel and the helmet shells that are shipped to Tennessee. As described, in Israel the Kevlar is cut, molded, heated, bonded, trimmed, and drilled. Additionally, the shell is painted and a rubber edge is applied. In our view, by virtue of the manufacturing process conducted in Israel, the Kevlar has lost its identity as a domestic component and, together with the paint and rubber, has become part of the Israeli-produced outer shell component of the end product. It is this outer shell component that is incorporated directly into the end product, not the Kevlar fabric. Because this Israeli-produced component would account for more than half the

total cost of all components incorporated in the outer shell assembly, Orlite's end product would fail to qualify as a domestic end product for purposes of the Buy American Act.

The protest is denied.

*Ronald Berger*  
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General Counsel